

CLAIMS

1. Process for preparing a flame retardant polyamide compound comprising melt-mixing of a composition comprising at least a polyamide polymer having a weight-average molecular weight of at least 10.000 g/mol and a flame retardant, characterized in that the composition comprises an amount of 0.1-30 wt%, relative to the total weight of polyamide, of a polyamide oligomer having a weight-average molecular weight of at most 7.500 g/mol, with the proviso that the composition that is melt-mixed does not consist of:
- i) 100 parts by weight of a polyamide polymer, 0.001-10 parts by weight of a polyamide oligomer with a molecular weight of 5000 or less and having hydrocarbon radicals with 5-30 carbons as the terminals, and 1-25 parts by weight of a triazine flame retardant;
  - ii) 100 parts by weight of a polyamide-6,6 polymer, 15 parts by weight of a polyamide oligomer with a molecular weight of 1000 and consisting of the condensation product of stearic acid, ethylenediamine, and sebacic acid, and 7 parts by weight of melamine cyanuric acid; or
  - iii) 100 parts by weight of a polyamide-6 polymer, 0.5 parts by weight of polyamide oligomer with a molecular weight of 1200 and consisting of the condensation product of stearyl amine, ethylenediamine, and sebacic acid, and 27 parts by weight melamine cyanuric acid.
2. Process according to claim 1, wherein the polyamide polymer is a polyamide with a melting temperature of at least 260°C.
3. Process according to any of claims 1 and 2, wherein the polyamide oligomer is a polyamide with a melting temperature of at least 260°C.
4. Process according to any of claims 1-3, wherein the flame retardant is halogen-free flame retardant.
5. Process according to any of claims 1-3, wherein the flame retardant is a halogenated organic compound.
6. Process according to any of claims 1-5, wherein the polyamide composition comprises a reinforcing component.
7. Flame retardant polyamide compound comprising a polyamide polymer having a weight-average molecular weight of at least 10.000 g/mol and a an amount

of 1-100 wt.%, relative to the total weight of polyamide, of a flame retardant, characterized in that the compound comprises an amount of 0.1-30 wt.%, relative to the total weight of polyamide, of a polyamide derived from a polyamide oligomer having a molecular weight of at most 7500-g/mol, with the proviso that the compound does not consist of:

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i) 100 parts by weight of a polyamide polymer, 0.001-10 parts by weight of a polyamide oligomer with a molecular weight of 5000 or less and having hydrocarbon radicals with 5-30 carbons as the terminals, and 1-25 parts by weight of a triazine flame retardant;

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ii) 100 parts by weight of a polyamide-6,6 polymer, 15 parts by weight of a polyamide oligomer with a molecular weight of 1000 and consisting of the condensation product of stearic acid, ethylenediamine, and sebacic acid, and 7 parts by weight of melamine cyanuric acid; or

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iii) 100 parts by weight of a polyamide-6 polymer, 0.5 parts by weight of polyamide oligomer with a molecular weight of 1200 and consisting of the condensation product of stearyl amine, ethylenediamine, and sebacic acid, and 27 parts by weight melamine cyanuric acid.

8. Use of a polyamide compound according to claim 8 for the preparation of a molded part.

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